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10/729,466	12/06/2003	William Loo	P18477US1	1261
7590 05/04/2007				
Alex Nicolaescu 8400 Decarie Bld, QA3096 Montreal, QC H4P 2N2 CANADA				
		EXAMINER		
		MOUZON, LAJUANIA N		
		ART UNIT	PAPER NUMBER	
		2109		
		MAIL DATE	DELIVERY MODE	
		05/04/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/729,466

**Applicant(s)**

LOO ET AL.

**Examiner**

La Juania N. Mouzon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12/6/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213..

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/12/2004, 3/24/2004</u> .                                    | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 3/24/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

2. The information disclosure statement filed 4/12/2004 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the information is not relevant to this particular application. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Response to Amendment***

3. The submitted amended claims do not comply with 37 CFR 1.121 (c). Amendments to a claim must be made by rewriting the entire claim with all changes (e.g., additions and deletions).

***Drawings***

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 150 and 314. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because of the handwritten numbers and objects (VSA's) are not clear. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

***Specification***

6. The disclosure is objected to because of the following informalities: ¶0009 line(s) 21, should read "Coile fails **to** teach..."

Appropriate correction is required.

7. The disclosure is objected to because of the following informalities: ¶0031 line(s) 29, should read, "...while the processing node **B 108** is assigned VSA-B."

Appropriate correction is required.

8. The disclosure is objected to because of the following informalities: ¶0037 line(s) 16, should read, "...wherein the link c **110** has failed..."

Appropriate correction is required.

9. The disclosure is objected to because of the following informalities: ¶0043 line(s) 7, should read, "...offers **an** efficient solution."

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

11. Claims 3 and 14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

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which it pertains, or with which it is most nearly connected, to make and/or use the invention. Normally when referring to a redundant system the systems are programmed, with physical addresses, to know of each other, therefore the level of predictability of how the transferring of virtual addresses is suppose to take place is not common to one of ordinary skill to know how this is done. The specification fails to teach the matter wherein how the Virtual Service Address (VSA) is established; what the process is that enables the moving of the VSA when the node fails.

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 4 recites the limitation "before the step of detecting the VSA" in first line of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Objections***

14. Claim 10 objected to because of the following informalities: should read, "...c. receiving at the second processing node at least one Transfer Prohibited (TFP) message **from** an adjacent STP...".

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claims 1, 5-8, 10-13, 15, 16, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan et al. (**US PGPub 2003/0152064**), further in view of Morgan et al. (**US 5,291,489**).

18. In regards to claim 1 Khan et al. discloses, a method for processing node redundancy comprising the steps of:

- a. detecting an unavailability of a first processing node (**¶0030, teaches detecting that the first node (SSCa) is unavailable.**);

19. Khan et al. do not teach, b. sending to an adjacent Service Transfer Point (STP) a Transfer Allowed (TFA) message for enabling a linkset route between the STP and a second processing node.

20. In the same field of endeavor Morgan et al. teach a message being sent to enable a linkset route to the gateway (**Col. 14 line(s) 35-39 and Col. 14 line(s) 57-63**).

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21. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify Khan et al. redundant SS7 deployment with Morgan et al. teaching as discussed above to allow for the capability of when detecting a fault to isolate the errors so that the faulty data does not propagate through to other processing system.

22. In regards to claims 2 and 13 Khan et al. do not teach, c. sending to the adjacent STP a Transfer Prohibited (TFP) message for disabling a linkset route between the STP and the first processing node.

23. In the same field of endeavor Morgan et al. teach a message being sent to disable a linkset route to the gateway (**Col. 14 line(s) 35-39 and Col. 14 line(s) 57-63**).

24. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify Khan et al. redundant SS7 deployment with Morgan et al. teaching as discussed above to allow for the capability of when detecting a fault to isolate the errors so that the faulty data does not propagate through to other processing system.

25. In regards to claims 5 and 15 Khan et al. discloses wherein the first processing node is a primary node, and the second processing node is a secondary, redundant node of the first processing node (**¶0053, teaches the first node (SSCa) as being the**



**primary and the second node (SSCb) as the secondary while being the redundant node for the first.).**

26. In regards to claims 6 and 16 Khan et al. discloses, wherein the first and second processing nodes are arranged in a load-sharing configuration (**¶0031, teaches the nodes being in a load-sharing configuration.**).

27. In regards to claim 7 Khan et al. discloses wherein steps a. and b. are performed by the first processing node (**¶0050, states that the below are examples and each SSC is redundant pair. Therefore obvious that the first node can perform steps a and b.**).

28. In regards to claim 8 Khan et al. discloses, wherein steps a. and b. are performed by the second processing node (**¶0059 - ¶0061, teaches whereas steps a & b are performed by the second node.**).

29. In regards to claim 10 Khan et al. discloses, c. receiving at the second processing node at least one Transfer Prohibited (TFP) message from an adjacent STP, the TFP message inhibiting a transmission of messages to the first processing node (**¶0056, teaches the second node receiving a message from the adjacent STP in response to the traffic being inhibited from traveling to the first node.**);

b. wherein step a. is performed as a consequence of step c (**¶0030, teaches detecting that the first node (SSCa) is unavailable.**).

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30. In regards to claims 11 and 19 Khan et al. discloses, wherein the first and second processing nodes utilize Signaling System #7 (SS7) signaling protocol, and the TFA message comprises an SS7 message (**¶0027, teaches the first and second nodes using the SS7 protocol for messages.**).

31. In regards to claim 12 Khan et al. discloses, a second processing node comprising:

- c. a Signal Transfer Element (STE) for routing incoming and outgoing messages (**¶0059, teaches the gateways (GW's) being used for routing incoming and outgoing messages.**);
- d. a Signal Processing Element (SPE) for processing the messages (**¶0057, teaches the SSC's being used for processing messages.**);
- e. wherein the second processing node detects an unavailability of a first processing node (**¶0030, teaches detecting that the first node (SSCa) is unavailable.**),

32. Khan et al. do not teach, responsive thereto the STE of the second processing node sends to an adjacent Service Transfer Point (STP) a Transfer Allowed (TFA) message for enabling a linkset route between the STP and the second processing node.

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33. In the same field of endeavor Morgan et al. teach a message being sent to disable a linkset route to the gateway (**Col. 14 line(s) 35-39 and Col. 14 line(s) 57-63**).

34. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify Khan et al. redundant SS7 deployment with Morgan et al. teaching as discussed above to allow for the capability of when detecting a fault to isolate the errors so that the faulty data does not propagate through to other processing system.

35. In regards to claim 18 Khan et al. discloses, wherein for detecting the unavailability of the first processing node (**¶0030, teaches detecting that the first node (SSCa) is unavailable.**),

f. the second processing node receives at least one Transfer Prohibited (TFP) message from an adjacent STP, the TFP message inhibiting a transmission of messages to the first processing node (**¶0056, teaches the second node receiving a message from the adjacent STP in response to the traffic being inhibited from traveling to the first node.**).

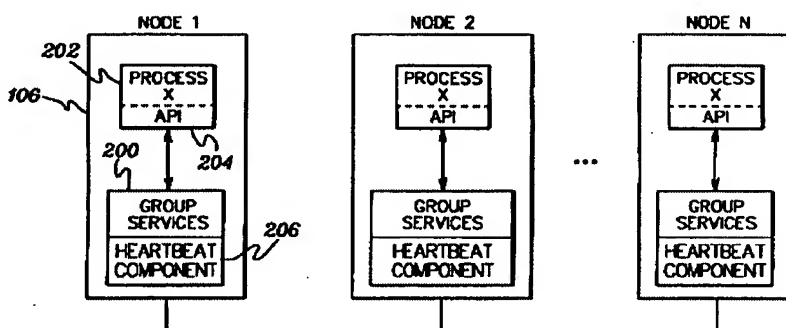
36. Claims 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan et al. (US PGPub 2003/0152064), further in view of Morgan et al. (US 5,291,489), as applied to claim 1 above, and further in view of Badovinat et al. (US 6,950,846).

Figure 2 of Badovinat et al. is reproduced below.

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37. In regards to claims 9 and 17 neither Khan et al. nor Morgan et al. teach, wherein step a. is performed by the second processing node using a heartbeat mechanism with the first processing node.

38. In the same field of endeavor Badovinatx et al. teach the second node using a heartbeat mechanism to determine if it is still available (**Fig 2 and Col. 3 line(s) 62-64.**).



*fig. 2*

39. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify Khan et al. redundant SS7 deployment and Morgan et al. Interprocessor switching network with Badovinatx et al. teaching as discussed above to allow for the capability that provides the global status of communications networks of the environment, such that peers know with whom they can communicate.

40. Claims 3, 4, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khan et al. (US PGPub 2003/0152064), further in view of Morgan et al. (US

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5,291,489), as applied to claims 1 and 12 above, and further in view of Smorodinsky et al. (US 6,055,574).

41. In regards to claims 3 and 14 neither Khan et al. nor Morgan et al. teach, c. re-assigning to the second processing node a non-permanent Virtual Service Address (VSA) assigned to the first processing node before the step of detecting the unavailability of the first processing node.

42. In the same field of endeavor Smorodinsky et al. teach assigning a virtual address to the second node before the first node is detected (Col. 2 line(s) 10-45).

43. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify Khan et al. redundant SS7 deployment and Morgan et al. Interprocessor switching network with Smorodinsky et al. teaching as discussed above to allow for the capability of when one of the computers fail services can still be obtained from the remaining computers that operate.

44. In regards to claim 4 neither Khan et al. nor Morgan et al. teach, wherein before the step of detecting the VSA is assigned to a Signal Processing Element (SPE) of the first processing node, and step c. comprises re-assigning the VSA to an SPE of the second processing node.

45. In the same field of endeavor Smorodinsky et al. teach assigning a virtual address to the second node (Col. 2 line(s) 10-45).

46. Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify Khan et al. redundant SS7 deployment and Morgan et al. Interprocessor switching network with Smorodinsky et al. teaching as discussed above to allow for the capability of when one of the computers fail services can still be obtained from the remaining computers that operate.

### ***Conclusion***

47. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Christie et al. method, system and apparatus for telecommunication control.

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to La Juania N. Mouzon whose telephone number is 571-270-3045. The examiner can normally be reached on Monday - Friday 8:00-5:00.

49. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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50. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LNМ

A handwritten signature in black ink, appearing to read 'Patrick Assouad', with a stylized, flowing script.

**PATRICK ASSOUD**  
**SUPERVISORY PATENT EXAMINER**